What is claimed is:

1. A device for manipulating samples at respective stations of a holding plate, said device comprising:

a base;

a probe mounted on said base for reciprocative movement;

a stage mounted on said base for supporting said holing plate;

a motor for moving said stage in a first coordinate plane (m_{xy});

a detection means for locating said probe and said selected samples in a second coordinate plane (p_{xy}); and

a computer means for corresponding said first coordinate plane with said second coordinate plane, said computer means being coupled with said motor to align said stage with said probe for movement of said probe to a selected station of said holding plate for manipulating a sample at the selected station.

2. A device as recited in claim 1, wherein said well detection means is a camera.

3. A device as recited in claim 2, further comprising an optical marker for attachment to said stage.

4. A device as recited in claim 3, further comprising an illumination system for causing said marker and selected said samples to fluoresce for detection and viewing thereof by said camera.

5. A device as recited in claim 4, further comprising an optical filter to prevent backscattered light from said illumination system from reaching said camera.

6. A device as recited in claim 5, wherein said probe comprises a needle and a fluorescent hub surrounding said needle for contrasting said needle therewith.

7. A device as recited in claim 1, wherein said computer means corresponds said first coordinate plane with said second coordinate plane using least squares techniques.

8. A device as recited in claim 1, wherein said holding plate has more than one thousand said stations.

9. A device for manipulating samples at respective stations of a holding plate which comprises:

a motorized means for moving said holding plate in a first coordinate plane (m_{xy});

a detection means for viewing said samples on said holding plate in a second coordinate plane (p_{xy}); and

a computer means for corresponding said first coordinate plane with said second coordinate plane, to position a selected sample at a predetermined location in said first coordinate plane in response to a movement of said holding plate by said motorized moving means, for manipulation of said sample from said stations of said holding plate at said predetermined location.

10. A device as recited in claim 9, wherein said computer means corresponds said first coordinate plane with said second coordinate plane using least squares techniques.

11. A device as recited in claim 9, further comprising: a probe; and a means for reciprocating said probe for manipulation of said selected sample from said holding plate.

12. A device as recited in claim 11, wherein said probe has an established position in said first coordinate plane and said established position of said probe determines said predetermined location for retrieval of said sample.

13. A device as recited in claim 11, further comprising a fluorescent marker mounted on said probe, wherein said probe comprises a needle and said marker is a fluorescent hub surrounding said needle for contrasting said needle therewith for viewing said needle in said second coordinate plane by said detection means.

14. A device as recited in claim 11, wherein said detection means comprises a camera.

15. A device as recited in claim 14, wherein said detection means comprises:

an illumination system for causing said marker and selected said samples to fluoresce for detection and viewing thereof by said camera; and

an optical filter to prevent backscattered light from said illumination system from reaching said camera.

16. A method for manipulating samples at respective stations of a holding plate which comprises the steps of:

positioning said holding plate for movement in a first coordinate plane (m_{xy});

viewing said samples in said stations on said holding plate in a second coordinate plane (p_{xy});

corresponding said first coordinate plane (m_{xy}) and said second coordinate plane (p_{xy}); and

moving said holding plate in said first coordinate plane (m_{xy}), to position a selected sample at a predetermined location in said first coordinate plane in response to a movement of said holding plate, for manipulation of said sample in said station of said holding plate at said predetermined location.

17. A method as recited in claim 16, further comprising the step of reciprocating a probe to said predetermined location to manipulate said sample.

18. A method as recited in claim 16, wherein said corresponding step is accomplished using least squares techniques.

19. A method as recited in claim 16, wherein said viewing step is accomplished using a camera.

20. A method as recited in claim 16, wherein said viewing step includes establishing a position for said probe, and said probe includes a needle and a fluorescent marker mounted on said probe, with said marker surrounding said needle for contrasting said needle therewith for viewing said needle in said second coordinate plane by said detection means.

21. A method as recited in claim 16, wherein said holding plate has a substantially flat first side, an opposed second side and a thickness "t" between said sides, wherein each said station is formed with an entrance at said first side for interaction with a probe, each said station defines a station axis, and wherein said method further comprises the step of using said thickness, "t" and the orientation of a said station axis relative to an axis normal to said first side, to position said entrance of said selected station at said predetermined location.

22. A method as recited in claim 21, wherein said orientation of said station axis relative to an axis normal to said first side includes an inclination angle, α, of said station axis relative to said axis normal to said first side, and a rotation angle, θ, of said station axis relative to said axis normal to said first side.